

NexBot Vision 643-011 Linear Rail Track (3m)

NexBot Robotics

SKU: NXB-GEN-643-011 | Category: Safety Systems
> Robot Mounts & Bases > Linear Rails & Tracks

Overview

The NexBot Vision 643-011 Linear Rail Track is a high-precision ground transport axis designed to significantly expand the operational range of compatible NexBot industrial robots. By providing a robust and accurate seventh axis of motion, this track enables applications such as machine tending across multiple CNCs, palletizing over large areas, and performing long-seam welding or inspection tasks that would otherwise require multiple robot stations or a much larger, fixed-base robot. Constructed with a hardened steel, V-guide rail system on a rigid structural steel base, the 643-011 ensures exceptional straightness and durability under demanding industrial conditions. Its design minimizes deflection and vibration, which is critical for maintaining tool-point accuracy throughout its travel. The system achieves a position repeatability of ± 0.05 mm, allowing for precise and consistent operations even at the extents of its range. With a maximum travel speed of 2.5 m/s, it facilitates rapid transit between workstations, minimizing non-productive time and optimizing cycle times. The track is engineered to support a total dynamic load of up to 1200 kg, accommodating a wide range of NexBot robots, end-of-arm tooling, and heavy workpieces. Its modular design allows for multiple 3-meter sections to be joined seamlessly, providing customizable travel lengths to suit specific facility layouts. An integrated, heavy-duty cable carrier runs the length of the track, protecting robot cables and pneumatic lines from wear, entanglement, and environmental hazards, thereby increasing system reliability and reducing maintenance. Installation is streamlined with precision-machined mounting surfaces and alignment features for straightforward integration into new or existing automation cells.

Technical Specifications

Parameter	Value	Unit
Weight	450.0	kg
Material	Hardened Steel Rail on Structural Steel Base	
Voltage	480VAC	
IP Rating	IP54	
Country of Origin	CH	
Protocol	EtherCAT	
Dimensions	3000 x 550 x 220 mm	

Parameter	Value	Unit
Payload	1200 kg	
Axes	1	
Repeatability	±0.05 mm	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).